# DEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

In the Matter of the Application of	) PUC Docket 2008-0273
PUBLIC UTILITIES COMMISSION	)
Instituting a Proceeding to Investigate the Implementation Of Feed-In Tariffs	2009 FEB 25

## LIFE OF THE LAND'S

**TARIFF SHEET** 

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## CERTIFICATE OF SERVICE

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76 North King Street, Suite 203 Honolulu, HI 96817 phone: 808-533-3454 henry.lifeoftheland@gmail.com February 25, 2009

Aloha Commissioners,

This Feed-In Tariff docket has about 22 parties, including five with a similar approach (HECO, MECO, HELCO, DBEDT and the CA). A different approach has been developed as a result of meetings by representatives of a dozen non-utility, non-state-governmental parties. Life of the Land is in general agreement with this alternative proposal and we are submitting it, minus the specific pricing tariffs, and terms of agreement, as part of this submittal. As for the specific tariff pricing for each of various sizes of various renewable energy resources, and the specific terms, we are continuing to research and understand the appropriate prices and years.

We also have positions on three issues which are not-discussed in this alternative document.

- (1) We support higher payments for what could be called baseload, or time of demand, or peak shaving. On peak / off peak block pricing would encourage and provide more subscription for resources that are coincident with utility system capacity needs. Alternatively, Baseload /Intermittent block pricing would encourage resources that could offset peak utility loads. Alternatively, Time of Use/Time of Demand pricing systems could charge ratepayers higher amounts for using power during peak periods, and the utility pays higher rates to Renewable Energy Generators that can provide power during these peak periods. California uses Time of Demand rates.
- (2) The parties to this document support both Net Metering and Feed-In Tariffs. The document is silent as to Competitive Bidding. Life of the Land believes that Competitive Bidding should be phased out and replaced with Feed-In Tariffs. We hold this viewpoint for two reasons: Feed-In Tariffs are far more open and transparent, while it is far easier to game Competitive Bidding. Also Feed-In Tariffs will increase the renewable energy penetration level quicker.
- (3) We continue to believe that the most effect way of increasing renewables on the

system is the following (much of which is beyond the scope of this docket): (1) As we proposed in Docket 96-0493, for HECO to offer a stock split with one share going to a wire company and one share going to a generation company, and that these two companies are independent of each other; (2) for the decoupling docket (2008-0274) to work on making these companies whole; and (3) for the Wire Company to implement Net Metering, Feed-In Tariffs and Wheeling.

#### Feed-in Tariff - Purchases from Renewable Energy Generating Facilities

### **Definitions:**

For the purposes of this Schedule:

- (1) "Biogas" means a gaseous fuel produced by anaerobic decomposition of organic matter.
- (2) "Biomass" means aquatic or terrestrial plant material, vegetation, or agricultural waste, originating in the State of Hawaii, used as a fuel or energy source.
- (3) "Company" means Hawaiian Electric Company, Inc.
- (4) "Concentrating Solar Power Facility" means a Renewable Energy Generating Facility that generates electricity by concentrating Solar Radiation to heat a working fluid that drives a generator.
- (5) "Electrical Capacity" means the installed maximum potential alternating-current electricity generating capacity, in kilowatts, of a Renewable Energy Generating Facility.
- (6) "Hybrid Facility" means a Renewable Energy Generating Facility that generates electricity from two or more Renewable Energy Sources.
- (7) "Hydropower" means the energy of moving water, including wave energy, ocean thermal energy conversion, and tidal energy.

- (8) "Non-Wood-Burning Generating Facility" means a Renewable Energy Generating Facility that generates electricity from Biomass and that is not a Wood-Burning Generating Facility.
- (9) "Offshore Wind Generating Facility" means a Wind Generating Facility that is located in an ocean water depth of at least 20 meters.
- (10) "Onshore Wind Generating Facility" means any Wind Generating Facility that is not an Offshore Wind Generating Facility.
- (11) "Photovoltaic Generating Facility" means a Renewable Energy Generating Facility that generates electricity from unconcentrated Solar Radiation.
- (12) "Renewable Energy" means electricity generated by a Renewable Energy Generating Facility from a Renewable Energy Source.
- (13) "Renewable Energy Generating Facility" means any identifiable facility, plant, installation, project, equipment, apparatus, or the like, located in the State of Hawaii, placed in service after the effective date of this Schedule, and that generates Renewable Energy from a Renewable Energy Source.
- (14) "Renewable Energy Generator" means any person that owns, controls, operates, manages, or uses a Renewable Energy Generating Facility to produce Renewable Energy from a Renewable Energy Source.
- (15) "Renewable Energy Source" means the following sources of energy: (a) Biomass;
- (b) Biogas; (c) Geothermal Energy; (d) Landfill Gas; (e) Sewage Treatment Plant Gas;
- (f) Hydropower; (g) Solar Radiation; (h) Wind.
- (16) "Wood-Burning Generating Facility" means a Renewable Energy Generating Facility that burns wood to generate electricity.
- (17) "Wind Generating Facility" means a Renewable Energy Generating Facility that generates electricity from Wind.

#### Interconnection

At the request of a Renewable Energy Generator that places a Renewable Energy Generating Facility in service, the Company shall interconnect such Renewable Energy Generating Facility to the electric system of the Company, provided that technical requirements set forth in the Company's Rules relating to interconnection of generating facilities with the Company's electric system, as approved by the Public Utilities Commission, are met. Costs incurred by the Company to meet technical requirements of interconnection shall be allocated so that those costs that benefit a Renewable Energy Generating Facility are borne by the Renewable Energy Generator that uses the Renewable Energy Generating Facility to produce Renewable Energy, in conformity with orders of the Public Utilities Commission relating to distributed generation in the State of Hawaii. Each of the Company and the Renewable Energy Generator shall disclose to the other, within 6 weeks of a request by the other, any and all data, relating to the electric system of the Company or the Renewable Energy Generating Facility of the Renewable Energy Generator, necessary to plan and execute such interconnection in conformity with such technical requirements.

A Renewable Energy Generating Facility shall be designed to operate in parallel with the Company's electric system without adversely affecting the operations of its customers and without presenting safety hazards to personnel of the Company or its customers. The Renewable Energy Generator shall furnish, install, operate and maintain facilities such as relays, switches, synchronizing equipment, monitoring equipment and control and protective devices designated by the Company and specified in the standard Schedule FIT Agreement ("Schedule FIT Agreement") as suitable for parallel operation with the electric system of the Company. The Renewable Energy Generating Facility and systems interconnecting the Renewable Energy Generating Facility with the Company's electric system must be in compliance with all applicable safety and performance standards of the National Electric Code (NEC), the Institute of Electrical and Electronics Engineers (IEEE), and the Company's requirements for distributed generation interconnected with the Company's electric system as provided in the Company's Rules, and subject to any other requirements, including payments, as provided in the Schedule FIT Agreement.

Requests to interconnect a Renewable Energy Generating Facility in parallel with the Company's electric system will be processed in accordance with the procedures in Appendix II.

#### Schedule FIT Agreement:

The Company shall offer a Schedule FIT Agreement, in the form provided in Appendix I, to any Renewable Energy Generator that requests interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule. Each such Schedule FIT Agreement shall oblige the Company to take all Renewable Energy generated by the Renewable Energy Generating Facility and made available to the electric system of the Company, and shall oblige the Company to purchase and pay for such Renewable Energy at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule. The Company shall compensate the Renewable Energy Generator for such Renewable Energy in an amount no less than the number of kilowatt-hours of such Renewable Energy multiplied by such rate of compensation.

With respect to Renewable Energy generated by a Hybrid Facility and delivered to the electric system of the Company, each such Schedule FIT Agreement shall oblige the Company to take all such Renewable Energy, and shall oblige the Company to purchase and pay for such Renewable Energy generated by the Hybrid Facility from each Renewable Energy Source at the feed-in tariff rate of compensation (in cents per kilowatt-hour) for such Renewable Energy set forth in this Schedule.

Procedures for requesting and executing a Schedule FIT Agreement are provided in Appendix II to this Schedule.

#### Metering:

The Company, at its expense, shall install a meter to record the flow of Renewable Energy delivered to the electric system of the Company. The Renewable Energy Generator shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the premises of the Renewable Energy Generating Facility in accordance with the Company's Rules.

Any energy delivered to a Renewable Energy Generator by the Company will be metered separately from any Renewable Energy delivered by the Renewable Energy Generator to the Company, either by use of multiple meters or a meter capable of separately recording the net inflow and outflow of electricity.

<u>Purchase of Renewable Energy Delivered by a Renewable Energy Generator to the Company:</u>

The Company shall pay for each kilowatt-hour ("kWh") of Renewable Energy delivered to the Company by a Renewable Energy Generator as follows. The capacity limits stated below shall not limit or pertain to the gross output of the Renewable Energy Generating Facility.

The Commission shall periodically adjust the Schedule FIT feed-in tariff rates of compensation in accordance with the procedures provided in Appendix III of this Schedule. The Renewable Energy Generator shall receive the feed-in tariff rate of compensation in effect at the time of execution of the Schedule FIT Agreement for the entire term of the Schedule FIT Agreement.

#### Net Energy Metering

A Renewable Energy Generator that is eligible to enter into a net energy metering agreement with the Company shall have a choice of either (1) entering into a net energy metering agreement with the Company, or (2) entering into a Schedule FIT Agreement with the Company.

Penetration Limits for Intermittent Renewable Energy Sources

The obligations of the Company to interconnect a Renewable Energy Generating Facility to the Company's electric system and to offer an Schedule FIT Agreement to a Renewable Energy Generator to purchase and pay for Renewable Energy at a feed-in tariff rate of compensation under this Schedule shall not apply with respect to Renewable Electricity produced by a Renewable Energy Generating Facility that is (i) a Wind Generating Facility, and that is placed in service after December 31 of the year following the year during which the aggregate Electrical Capacity of Renewable Energy Generating Facilities that are Wind Generating Facilities as to which technical requirements for interconnection have been met equals or exceeds 25 per cent of the peak demand for such electrical system, provided that the Public Utilities Commission may increase, by rule or order, such aggregate Electrical Capacity limit above 25 per cent of such peak demand, or (ii) a Photovoltaic Generating Facility or a Concentrating Solar Generating Facility, and that is placed in service after December 31 of the year following the year during which the aggregate Electrical Capacity of Renewable Energy Generating Facilities that are Photovoltaic Generating Facilities or Concentrating Solar Generating Facilities as to which technical requirements for interconnection have been met equals or exceeds 50 per cent of the peak demand for such electrical system, provided that the Public Utilities Commission may increase, by rule or order, such aggregate Electrical Capacity limit above the above-referenced 25 per cent and 50 per cent peak demands.

#### Queuing Procedures:

Requests for interconnection of Renewable Energy Generating Facilities under this Schedule shall be administered on a first-ready, first-to-interconnect basis, modeled after the queuing procedures proposed by the Midwest Independent Transmission System Operator, Inc. ("Midwest ISO") and conditionally accepted by the Federal Energy Regulatory Commission. See 124 FERC ¶ 61,183, Midwest Independent Transmission System Operator, Inc., docket No. ER08-1169-000, Order Conditionally Accepting Tariff Revisions and Addressing Queue Reform, August 25, 2008.

#### Renewable Energy Certificates:

Any certificate, credit, allowance, green tag, or other transferable indicia or

environmental attribute, verifying the generation of a particular quantity of energy from a Renewable Energy Source, indicating the generation of a specific quantity of Renewable Energy by a Renewable Energy Generating Facility, or indicating a Renewable Energy Generator's ownership of any environmental attribute associated with such generation, is the property of the Renewable Energy Generator and freely assignable by the Renewable Energy Generator.

#### CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy by hand delivery of the foregoing proposed Tariff Sheet by Life of the Land, in PUC Docket Number 2008-0273, upon the following parties. I have hand delivered the original and 8 copies to the PUC, and sent electronic copies to the emails below representing the parties listed further below.

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